Nortel Communication Server 1000
Nortel Communication Server 1000 Release 5.0

Meridian 1

Small System Software-only Upgrade

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Revision history

May 2007

Standard 01.01. This document is issued to support Communication Server 1000 Release 5.0. This document contains information previously contained in the following legacy document, now retired: Communication Server 1000M and Meridian 1 Small System Upgrade Procedures (553-3011-258).

August 2005

Standard 3.00. This document is up-issued to support Communication Server 1000 Release 4.5.

September 2004

Standard 2.00. This document is up-issued to support Communication Server 1000 Release 4.0.

October 2003

Standard 1.00. This document is a new NTP for Succession 3.0. It was created to support a restructuring of the Documentation Library, which resulted in the merging of multiple legacy NTPs. This new document consolidates

information previously contained in the following legacy documents, now retired:

- *Option 11C Mini: Expansion using Fiber-optic and IP Connectivity Guide* (553-3021-208)
  (Content from *Option 11C Mini: Expansion using Fiber-optic and IP Connectivity Guide* (553-3021-208) also appears in *Communication Server 1000M and Meridian 1: Small System Overview* (NN43011-110) and *Communication Server 1000M and Meridian 1: Small System Planning and Engineering* (NN43011-220).)
- *Option 11C and 11C Mini: Upgrade Procedures Guide* (553-3021-250)
  (Content from *Option 11C and 11C Mini: Upgrade Procedures Guide* (553-3021-250) also appears in *Communication Server 1000M and Meridian 1: Small System Maintenance* (NN43011-700).)

Contents

List of procedures

About this document

This document is a global document. Contact your system supplier or your Nortel representative to verify that the hardware and software described are supported in your area.

Subject

CS 1000M Small System Software Upgrade Procedures (NN43011-459) contains information required to perform a software upgrade on an existing small system (Cabinet or Chassis).

This guide does not describe how to add equipment (such as additional cabinets or line cards) to the system. Refer to *Communication Server 1000M and Meridian 1: Small System Installation and Configuration* (NN43011-310) when the upgrade includes installing equipment (such as another expansion cabinet at a remote site). Also refer to the site and system planning information in *Communication Server 1000M and Meridian 1: Small System Planning and Engineering* (NN43011-220).

Note on legacy products and releases

This NTP contains information about systems, components, and features that are compatible with Nortel Communication Server 1000 Release 5.0 software. For more information on legacy products and releases, click the **Technical Documentation** link under **Support** on the Nortel home page:

http://www.nortel.com/

Applicable systems

This document applies to the following systems:

- Communication Server 1000M Chassis (CS 1000M Chassis)
- Communication Server 1000M Cabinet (CS 1000M Cabinet)
- Meridian 1 PBX 11C Chassis (Meridian 1 PBX 11C Chassis)
- Meridian 1 PBX 11C Cabinet (Meridian 1 PBX 11C Cabinet)

Note: When upgrading software, memory upgrades may be required on the Signaling Server, the Call Server, or both.

System migration

When particular Meridian 1 systems are upgraded to run CS 1000 Release 5.0 software and configured to include a Signaling Server, they become CS 1000M systems. Table 1 lists each Meridian 1 system that supports an upgrade path to a CS 1000M system.

Table 1
Meridian 1 systems to CS 1000M systems

This Meridian 1 system...	Maps to this CS 1000M system
Meridian 1 PBX 11C Chassis	CS 1000M Chassis
Meridian 1 PBX 11C Cabinet	CS 1000M Cabinet

Note the following:

- When an Option 11C Mini system is upgraded to run CS 1000 Release 5.0 software, that system becomes a Meridian 1 PBX 11C Chassis.
- When an Option 11C system is upgraded to run CS 1000 Release 5.0 software, that system becomes a Meridian 1 PBX 11C Cabinet.

Intended audience

This document is intended for individuals responsible for upgrading existing Small Systems.

Conventions

Terminology

In this document, the following systems are referred to generically as "system":

- Communication Server 1000M (CS 1000M)
- Meridian 1

The following systems are referred to generically as "Small System":

- Communication Server 1000M Chassis (CS 1000M Chassis)
- Communication Server 1000M Cabinet (CS 1000M Cabinet)
- Meridian 1 PBX 11C Chassis (Meridian 1 PBX 11C Chassis)
- Meridian 1 PBX 11C Cabinet (Meridian 1 PBX 11C Cabinet)

The following systems are referred to generically as "Chassis system":

- Communication Server 1000M Chassis (CS 1000M Chassis)
- Meridian 1 PBX 11C Chassis (Meridian 1 PBX 11C Chassis)

The following systems are referred to generically as "Cabinet system":

- Communication Server 1000M Cabinet (CS 1000M Cabinet)
- Meridian 1 PBX 11C Cabinet (Meridian 1 PBX 11C Cabinet)

Related information

This section lists information sources that relate to this document.

NTPs

The following NTPs are referenced in this document:

- *Signaling Server: Installation and Commissioning* (NN43001-312)
- *IP Peer Networking: Installation and Commissioning* (NN43001-313)

- *Optivity Telephony Manager: Installation and Commissioning* (NN43050-300)
- *Features and Services* (NN43001-106)
- *Software Input/Output: Administration* (NN43001-611)
- *Optivity Telephony Manager: System Administration* (NN43050-601)
- *Element Manager: System Administration* (NN43001-632)
- *IP Trunk: Description, Installation, and Operation* (NN43001-563)
- *IP Line: Description, Installation, and Operation* (NN43100-500)
- *IP Phones: Description, Installation, and Operation* (NN43001-368)
- *Software Input/Output: Maintenance* (NN43001-711)
- *Communication Server 1000M and Meridian 1: Small System Overview* (NN43011-110)
- *Communication Server 1000M and Meridian 1: Small System Planning and Engineering* (NN43011-220)
- *Communication Server 1000M and Meridian 1: Small System Installation and Configuration* (NN43011-310)
- *Communication Server 1000M and Meridian 1: Small System Maintenance* (NN43011-700)
- *Communication Server 1000M and Meridian 1: Large System Installation and Commissioning* (NN43021-310)
- *Communication Server 1000S: Installation and Commissioning* (NN43031-310)

Online

To access Nortel documentation online, click the **Technical Documentation** link under **Support** on the Nortel home page:

http://www.nortel.com/

CD-ROM

To obtain Nortel documentation on CD-ROM, contact your Nortel Networks customer representative.

Technical support

For technical support contact information, see “Technical Assistance service” on page 81.

How to get help

This chapter explains how to get help for Nortel products and services.

Getting help from the Nortel web site

The best way to get technical support for Nortel products is from the Nortel Technical Support web site:

www.nortel.com/support

This site provides quick access to software, documentation, bulletins, and tools to address issues with Nortel products. From this site, you can:

- download software, documentation, and product bulletins
- search the Technical Support Web site and the Nortel Knowledge Base for answers to technical issues
- sign up for automatic notification of new software and documentation for Nortel equipment
- open and manage technical support cases

Getting help over the telephone from a Nortel Solutions Center

If you do not find the information you require on the Nortel Technical Support web site, and you have a Nortel support contract, you can also get help over the telephone from a Nortel Solutions Center.

In North America, call 1-800-4NORTEL (1-800-466-7835).

Outside North America, go to the following web site to obtain the telephone number for your region:

www.nortel.com/callus

Getting help from a specialist by using an Express Routing Code

To access some Nortel Technical Solutions Centers, you can use an Express Routing Code (ERC) to quickly route your call to a specialist in your Nortel product or service. To locate the ERC for your product or service, go to:

www.nortel.com/erc

Getting help through a Nortel distributor or reseller

If you purchased a service contract for your Nortel product from a distributor or authorized reseller, contact the technical support staff for that distributor or reseller.

Upgrading or installing software

Contents

This section contains information on the following topics:

Introduction

This chapter describes how to upgrade software on a variety of Small Systems using the Software Installation Program. The Software Installation Program is the tool used to install, modify, or upgrade system software on a Small System Controller (SSC) card. This program is menu-driven and includes a Help facility to help you make correct selections.

IMPORTANT!

The main cabinet/chassis software must be installed or upgraded prior to the IP expansion cabinets/chassis. Ensure that the main cabinet/chassis installation or upgrade is complete and the main cabinet or chassis is up and running prior to loading the expansion cabinets/chassis.

Note: Expansion cabinets/chassis can be installed in any order.

The procedures in this chapter describe how to upgrade and install the software using a Software Daughterboard or a Software Delivery card (PC Card).

This chapter contains the following procedures:

- Procedure 8, “Upgrading or reinstalling software on an active Small System with survivable IP expansion cabinet(s)/chassis” on page 51
- Procedure 9, “Installing software for IP expansion, using the preprogrammed software daughterboard” on page 52
- Procedure 10, “Installing software for IP expansion, using the preprogrammed software daughterboard through the Utilities menu” on page 54
- Procedure 11, “Configuring IP settings with Expansion Cabinet Installation option” on page 57
- Procedure 12, “Configuring IP settings through the Utilities menu” on page 60

For the Meridian 1 PBX 11C Cabinet and Meridian 1 PBX 11C Chassis, see Procedure 1 through Procedure 4. These procedures describe how to upgrade the software on an existing Option 11C or Option 11C Mini to Release 25.30 or CS 1000 Release 5.0.

Note: Prior to Release 25, Option 11C Mini systems do not support the SSC card.

For a Meridian 1 PBX 11C Cabinet or Meridian 1 PBX 11C Chassis with IP expansion, see Procedure 1 through Procedure 8 and Procedure 9 through Procedure 12:

- Procedure 1 through Procedure 6 describe how to upgrade the software on an existing Option 11C or Option 11C Mini with IP expansion cabinets/chassis to CS 1000 Release 5.0 or later software.
- For the active Option 11C or Option 11C Mini with IP expansion cabinet(s)/chassis, refer to Procedure 7 or Procedure 8. These procedures describe how to upgrade/reinstall the software to CS 1000 Release 5.0 or later software.
- For first-time software installation on IP expansion cabinets/chassis for a newly expanded Small System, refer to Procedure 9 through Procedure 12.

Note: A CS 1000M Cabinet or CS 1000M Chassis is a Meridian 1 PBX 11C Cabinet or Meridian 1 PBX 11C Chassis with a Signaling Server in the network configuration. To install or upgrade the Signaling Server software, refer to *Signaling Server: Installation and Commissioning* (NN43001-312).

IMPORTANT!

To complete the upgrade, you must have a new Keycode Data Sheet and one of the following:

- Software Delivery card (PC Card)
- Software Daughterboard programmed with the new software release

Refer to the Keycode Data Sheet when you enter the License parameters, add packages, or change the AUX ID.

Keycode information

The Keycode Data Sheet provides the data you need to enter during the software installation.

If the keycodes are unsuccessful, check the following:

- software issue
- feature set name
- any additional packages
- TNs
- License parameters
- security ID
- auxiliary ID (the old site ID, if this is an upgrade)
- ensure the correct keycodes were entered. All items must match the Keycode Data Sheet exactly.

When performing a new system installation, ensure that the default AUX ID matches the AUX ID from the Keycode Data Sheet.

If the keycodes still are not successful, then call your Service Representative.

Summary of items required

You need the following items to perform software upgrades:

- Software Delivery card (PC Card) containing the new software, or a Software Daughterboard programmed in advance, or a blank PC Card and access to the Nortel Electronic Software Distribution website to download the applicable software to your Software Daughterboard
- Keycode Data Sheet
- TTY terminal connected to port 0

Upgrading the software

This section gives a summary of the steps and the upgrade procedures.

Summary of steps

The following list reviews the steps you need to follow to upgrade from one software release to another.

1 Update the boot code.

IMPORTANT!

You must upgrade the boot code of the SSC to the most current version before starting any upgrade. This will allow the system software to recognize the Software Daughterboard. The bootcode is backwards compatible.

2 Upgrade the system controller card and/or the Software Daughterboard, if necessary.

Refer to *Communication Server 1000M and Meridian 1: Small System Installation and Configuration* (NN43011-310) for system controller card and Software Daughterboard requirements and upgrade procedures.

3 Install the Software Delivery card.

4. Call up the Software Installation Program.
5. Make any changes to the feature set.
6. Select a database.
7. Make any changes to the License parameters.
8. Validate the keycodes.
9. Load the software.

Software Daughterboard compatibility

The following identifies the existing software daughterboards and the software releases with which they are compatible.

Table 2
Software daughterboard and software release

Software Daughterboard	Capacity	Introduced on	Compatible with
NTDK21AA	32 Mb	Release 22.08D	Release 22.08D - 23.55
NTDK81AA	40 Mb	Release 23.18	Release 22.18 - 24.24

Reason for checking Software Daughterboard capacity

For CS 1000 Release 5.0 software, your system must have a 48 Mbyte configuration for the program store and 32 Mbyte of C: drive flash.

You must upgrade Option 11C systems that have the original NTDK21 or NTDK81 Software Daughterboard or Meridian 1 PBX or CS 1000M systems that have the NTTK13AA or NTTK25AA daughterboard. The NTDK21 and NTDK81 were delivered on systems with Release 24 or earlier software.

When you upgrade to a new Software Daughterboard, follow Procedure 3 on page 29. If you are not changing daughterboards, follow Procedure 4 on page 31.

Upgrade procedures

The following procedures describe how to upgrade and install the software using a Software Daughterboard or a Software Delivery card (PC Card).

Procedure 1
Identifying the type of Software Daughterboard installed in your system

1 Check the existing program store.

a. Log in to the switch and access LD 135.

b. Type the following at the prompt:

```
stat mem
```

The output indicates the amount of program store available on the system.

If	Then
The output indicates that the program store size is 24 Mb	the system has an NTDK21. Refer to Procedure 2 on page 26 and Procedure 3 on page 29 to upgrade your Software Daughterboard.
The output indicates that the program store size is 32 Mb and the C: drive flash is 8 Mb	the system has an NTDK81. Refer to Procedure 2 on page 26 and Procedure 3 on page 29 to upgrade your Software Daughterboard.
The output indicates that the program store size is 32 Mb and the C: drive flash is 16 Mb	the system has an NTTK13AA or NTTK25AA. Go to Procedure 2 on page 26 and verify you have the correct Flash Boot ROM version.

End of Procedure

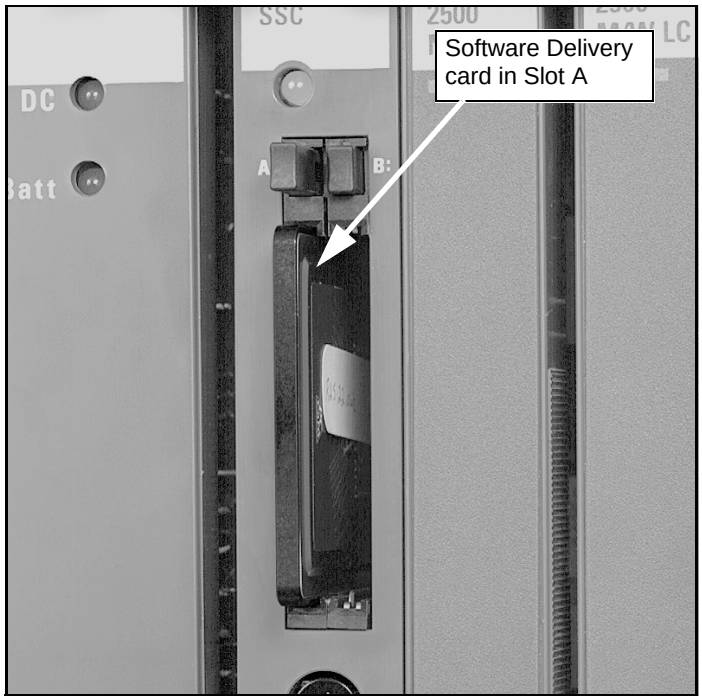
Procedure 2
Upgrading the Flash Boot ROM

1 Insert the Software Delivery card for the required release of software in Slot A in the PC Card socket located in the NTDK20 SSC faceplate. See Table 2 on page 24 for the required release of software.

See Figure 1 on page 26 for the correct position.

Note: Carefully press on the PC Card until it seats tightly.

Figure 1
Software Delivery card



2 Call up the Software Installation Program using LD 143 and select the Utilities (item 3) option.

a. Issue the **UPGRADE** command in LD 143. Look for the following message:

```
Call Server/Main Cabinet Software Installation Main
Menu:
1. New Install or Upgrade from Option 11/11E - From
Software DaughterBoard
2. System Upgrade
3. Utilities
4. New System Installation - From Software Delivery
Card
[q]uit, [p]revious, [m]ain, [h]elp or [?], <cr>-
redisplay

Enter Selection: 3
```

b. If the screen displays the message, select item 3 and continue with step 3.

c. If the screen does not display the message, repeat step 2 (this step) and make sure you enter the correct information.

3 Select the Flash Boot ROM Utilities (item 6) from the **Utilities** menu.

The **Utilities** menu displays:

```
Utilities Menu:

1. Restore Backed Up Database
2. Archive Database Utilities
3. Install Archived Database
4. Review Upgrade Information
5. Clear Upgrade Information
6. Flash Boot ROM Utilities
7. Current Installation Summary
8. Change 3900 series set languages
9. IP FPGA Utilities
[q]uit, [p]revious, [m]ain, [h]elp, or [?], <cr>-
redisplay

Enter Selection: 6
```

4 List Flash Boot ROM (item 1) from the **Flash Boot ROM Utilities** menu.

```
Flash Boot ROM Utilities Menu:
1. List Flash Boot ROM
2. Upgrade Flash Boot ROM
3. Restore Flash Boot ROM
[q]uit, [p]revious, [m]ain, [h]elp or [?], <cr>-
redisplay

Enter Selection: 1

Flash Boot ROM Summary:

Active -- NTDK34FA_r07
Backup -- NTDK34AA_r08
```

Note: It is possible that there will be no entry for the Backup boot ROM.

5 Verify your Flash Boot ROM code output from step 4 with the software you are loading.

All versions of boot code are backwards compatible.

IMPORTANT!

If the release number and boot code version on the Software Delivery card is greater than the active version shown, perform the upgrade.

If the release number and boot code version on the Software Delivery card is less than the active version shown, do not perform the upgrade.

6 Upgrade the Flash Boot ROM (item 2) and select yes to perform the upgrade.

The **Flash Boot ROM Utilities** menu displays:

```
Flash Boot ROM Utilities Menu:
1. List Flash Boot ROM
2. Upgrade Flash Boot ROM
3. Restore Flash Boot ROM
[q]uit, [p]revious, [m]ain, [h]elp or [?], <cr>-
redisplay

Enter Selection: 2
```

```
Are you sure you wish to perform the Flash Boot ROM
Upgrade/Restore (y/n/[a]bort): Y

Upgrading Active FLash Boot ROM to XXXXXXXX_XXX

System Restart required to activate Flash Boot ROM
Upgrade.
```

7 Restart the system to activate the Flash Boot ROM upgrade.

Go to Procedure 3 on page 29 to upgrade the Software Daughterboard.

End of Procedure

Procedure 3
Upgrading the NTDK21 or NTDK81 Software Daughterboard to the NTTK13 or NTTK25

If you already have an NTTK13 or NTTK25 daughterboard and you have upgraded your Flash Boot ROM, go to Procedure 4 on page 31.

1 Change the Software Daughterboard.

Note: Prior to Release 25, Option 11C Mini systems do not support the SSC card.

a. Power down the system.

b. Remove the NTDK20 SSC card.

c. Remove the NTDK21or NTDK81 daughterboard from the SSC card and replace it with the NTTK13 or NTTK25.

d. Install the NTDK20 SSC card in slot 0 of the main cabinet or chassis.

e. Power up the system.

2 From the Software Installation Program main menu, do the following:

a. From the Main Menu, select "`New System Installation - From Software DaughterBoard`" (item 1).

b. Go to step 5 on page 30 if the Installation menu appears.

The card appears on the Install menu if the target software came programmed in advance on a new Software Daughterboard (NTSKxxAJ or higher).

3 If the system has an NTTK13 or NTTK25 blank daughterboard, insert the Software Delivery card with CS 1000 Release 5.0 software into Slot A of the SSC card. Proceed with step 4 on page 30.

4 From the Main Menu, select "`New System Installation - From Software Delivery Card`" (item 4).

5 Continue with the Installation menu selections as described for a new system installation in the software installation chapter in *Communication Server 1000M and Meridian 1: Small System Installation and Configuration* (NN43011-310). When prompted for the selection of database, select "`Basic Configuration`" (item 2).

WARNING

It is important that you select "Basic Configuration" at this point. If you do not, the system can start an EDD after loading the new software and overwrite the customer data stored on the CPU.

6 After you install the software and reboot the system, you must restore the customer's backup configuration files.

a. Log in and load LD 143 to access the Main Menu.

b. Select "`Utilities`" (item 3).

c. Select "`Restore`" (item 1).

d. Select "`Backup Flash Drive`" (item 1).

e. Confirm "`Restore Database from the Backup Flash Drive`."

f. Reboot the system by powering down and up.

End of Procedure

Procedure 4
Upgrading the software using a Software Delivery card on the main cabinet or chassis

Note: This procedure requires that the NTTK13 or NTTK25 Software Daughterboard is on the SSC card. To check that you have installed the NTTK13 or NTTK25, see Procedure 1 on page 25.

1 Perform a datadump (EDD).

a. Load LD 43 or 143.

b. Enter command **`EDD`**.

2 Disable all DCHs in LD 60.

3 Disable any AML links in LD 48.

4 Insert the Software Delivery card in Slot A in the PC Card socket. Locate the PC Card socket in the faceplate of the SSC card.

See Figure 1 on page 26 for the correct position.

Note: Carefully press on the PC Card until it seats tightly.

5 Select the method of starting the Software Installation Program.

CAUTION — Service Interruption

Please read this important message on software upgrades.

There are two methods of starting the Software Installation Program:

- UPGRADE method: Log in to the system and select LD 143. Type **`UPGRADE`** to access the Software Installation Program.
- SYSLOAD method: Toggle the power supply to OFF and then to ON. During the reboot, press **Ctrl+I** to access the Software Installation Program.

Note: A software upgrade can take 20 to 30 minutes to complete.

If	Then
You are using the **UPGRADE** command in LD 143	go to next step (step 6).
You are using the SYSLOAD method (by pressing **Ctrl+I** when prompted during a SYSLOAD)	go to step 7 on page 32.

6 Log in to the system.

a. Type **LOGI** and press **<CR>**.

PASS? displays.

b. Respond to prompt.

Note: The response to PASS? is distinct in each system. The following response is an example only.

```
PASS?
0000 <CR>
LD 143 <CR>
UPGRADE <CR>
```

c. Go to step 8 on page 33.

7 Call up the Software Installation Program during a SYSLOAD.

During SYSLOAD, the following prompt appears:

```
FIVE SECONDS TO ENTER CONTROL-I TO INVOKE SOFTWARE
INSTALLATION PROGRAM

Press and hold 'control' key and press 'I'.
```

Note: Perform this step when starting the Software Installation Program during a SYSLOAD. To start the program using LD 143, ignore this step and do step 6 on page 32 instead.

For a Cabinet system, start a system reload (SYSLOAD) by setting the circuit breaker on the front of the power supply to OFF then to ON.

For a Chassis system, start a system reload (SYSLOAD) by turning the power switch located on the inside front panel to OFF and then to ON.

8 Select `System Upgrade` (item 2) from the Main Menu.

The Main Menu options are displayed:

```
Call Server/Main Cabinet Software Installation Main
Menu:
1. New Install or Upgrade from Option 11/11E - From
Software DaughterBoard
2. System Upgrade
3. Utilities
4. New System Installation - From Software Delivery
Card
[q]uit, [p]revious, [m]ain, [h]elp or [?], <cr> -
redisplay

Enter Selection: 2
```

9 Select the `New Software Upgrade` (item 2) from the **Select type of upgrade to be performed** menu.

The **Select type of upgrade to be performed** menu is displayed:

```
Select type of upgrade to be performed:
1. Option 11/11E Upgrade
2. New Software Upgrade
3. Feature/Parameter Upgrade
[q]uit, [p]revious, [m]ain menu, [h]elp or [?],
<cr> - redisplay

Enter Selection: 2
```

10 Select whether you wish to archive the database.

Note: Nortel recommends that you always back up your database (using the Archive utility or CCBR) before you begin any software upgrades. The advantage of selecting the option to archive the database in this step, as part of the upgrade, is that it will create an additional archive on the PC Card containing the software.

```
Do you wish to archive the database?
```

If not archiving the database, choose no (**N**) and proceed to step 12.

```
(y/n/[a]bort): Y
```

```
Customer Database Archives:
1. List customer databases.
2. Remove customer database.
3. Archive a customer database.
4. Continue s/w upgrade.

q]uit, [p]revious, [m]ain menu, [h]elp or [?], <cr> -
redisplay

Enter Selection: 3

Enter a Customer name for your customized data:
XXXXXXX
Customer database created: XXXXXXX
Copying database from primary drive to XXXXXXX
Archive copy completed.

Customer Database Archives:

1. List customer databases.
2. Remove customer database.
3. Archive a customer database.
4. Continue s/w upgrade.

q]uit, [p]revious, [m]ain menu, [h]elp or [?], <cr> -
redisplay
Enter Selection: 4

Communication Server 1000 Software Rls XXXX will be
installed.
```

11 Indicate whether the system has a Signaling Server.

```
*** NOTE: The following questions require information
on the Keycode Data Sheet. Please have it available.
***

   Does this System have a Signaling Server?:(y/n/
   [a]bort): N
```

12 Select the feature set.

```
Select Feature Set You Wish to Enable:
1. N.America Business Services-L1 (ntsk01cb)
2. N.America Enhanced Business Services-L2 (ntsk01db)
3. N.America Adv. Call Centre Service-L3A (ntsk01eb)
4. N.America Adv. Networking Services-L3B (ntsk01fb)
5. N.America Premium Network Services-L4 (ntsk01gb)
6. CALA Business Services-L1 (ntsk01hb)
7. CALA Enhanced Business Services-L2 (ntsk01ib)
8. CALA Adv. Call Centre Services-L3A (ntsk01jb)
9. CALA Adv. Networking Services-L3B (ntsk01kb)
10. CALA Premium Network Services-L4 (ntsk01lb)
[q]uit, [p]revious, [m]ain menu, [h]elp or [?], <cr> -
redisplay

   Enter Selection: 5
```

Note: Feature Set Selection: N.America Premium Network Services-L4

Note: The feature set you select is provided with your keycode information.

13 Select whether you wish to install the Dependency Lists.

```
Do you wish to install Dependency Lists? (y/n/
[a]bort): Y
```

Note: it is important to ensure you have the latest issue of the Dependency Lists at the time of system installation. The issue and date of the Dependency Lists will be referenced with the installer's checklist documentation. Please refer to the PEP Library for the current Dependency List issue.

14 Select the packages you want to add, if any.

Example screen display for adding packages is as follows:

```
Do you wish to add packages? (y/n/[a]bort): Y
Summary of packages selected:
0-2 4-5 7-14 16-21 16-29...

Enter additional packages: <cr> to continue
22 <CR>

Your feature set selection is "N.America Premium
Network Services-L4":
```

```
Additional packages selected:
22

Summary of packages:
0-2 4-5 7-14 16-29...

Is this correct? (y/n/[a]bort): Y
```

15 Review License parameters.

The License parameters displayed on the terminal screen are the default settings connected with the feature set selection. You can accept these settings without changes, or change them to meet the requirements of the system.

Example screen display for License parameters:

```
License Parameters will be set to:
TNS                  ( 2500)
ACDN                 (  300)
AST                  (    1)
LTID                 (    0)
RAN CON              (    0)
RAN RTE              (  500)
MUS CON              (    0)
BRAND                (    2)
ACD AGENTS           (   10)
ANALOGUE TELEPHONES  (    0)
ATTENDANT CONSOLES   ( 2500)
BRI DSL              (  150)
CLASS TELEPHONES     (    0)
DATA PORTS           ( 2500)
DIGITAL TELEPHONES   (    0)
IP PHONES (    0)
PHANTOM PORTS        ( 2500)
WIRELESS TELEPHONES  (    0)
WIRELESS VISITORS    (    0)
ITG ISDN TRUNKS      (    0)
TRADITIONAL TRUNKS   ( 2500)
TMDI D-CHANNELS      (   64)
SURVIVABILITY        (    1)
PCA                  (    0)
IP PEER H.323 TRUNKS(    0)
SIP ACCESS PORTS     (    0)
```

```
Do you wish to change License parameters? (y/n/
[a]bort):
```

Do one of the following:

- Enter **n <CR>** (no change) and go to step 18 on page 38.
- Enter **y <CR>** (change) and continue with the next step (step 16).

16 Select License parameters.

Example screen display in which the TN and Survivability License parameters have changed:

```
Enter new License parameters, <CR> to leave
unchanged:

TNS (100) 200
ACDN (300)
AST (100)
LTID (100)
RAN CON (12)
RAN RTE (2500)
MUS CON (100)
BRAND (0)
ACD AGENTS (300)
ANALOGUE TELEPHONES (2500)
ATTENDANT CONSOLES (2500)
BRI DSL (100)
CLASS TELEPHONES (2500)
DATA PORTS (2500)
DIGITAL TELEPHONES (2500)
IP PHONES (0)
PHANTOM PORTS (2500)
WIRELESS TELEPHONES (2500)
WIRELESS VISITORS (0)
ITG ISDN TRUNKS (2500)
TRADITIONAL TRUNKS (2500)
TMDI D-CHANNELS (100)
SURVIVABILITY (0) 4
```

17 Confirm the License parameters.

Example screen display of the new License parameters:

```
New License parameters:
```

```
TNS (200)
ACDN (300)
AST (100)
LTID (100)
RAN CON (12)
RAN RTE (2500)
MUS CON (100)
BRAND (0)
ACD AGENTS (300)
ANALOGUE TELEPHONES (2500)
ATTENDANT CONSOLES (2500)
BRI DSL (100)
CLASS TELEPHONES (2500)
DATA PORTS (2500)
DIGITAL TELEPHONES (2500)
IP PHONES (0)
PHANTOM PORTS (2500)
WIRELESS TELEPHONES (2500)
WIRELESS VISITORS (0)
ITG ISDN TRUNKS (2500)
TRADITIONAL TRUNKS (2500)
TMDI D-CHANNELS (100)
SURVIVABILITY (4)
PCA (0)
IP PEER H.323 TRUNKS(0)
SIP ACCESS PORTS(0)

Is this correct? (y/n/[a]bort): Y
```

Do one of the following:

- Enter **n <CR>** (no) and go to step 15 on page 36.
- Enter **y <CR>** (yes) and continue with step 18 on page 38.
- Enter **a <CR>** (abort, return to Main Menu).

18 Define the Auxiliary Identification (AUX ID).

The default AUX ID is either the security ID provided with the Small System, or the original Option 11C, Option 11C Mini, or Option 11/11E site ID.

Note 1: The AUX ID is on your Keycode Data Sheet. The AUX ID must match either the security ID (Meridian 1 PBX 11C Cabinet, CS 1000M Cabinet, Meridian 1 PBX 11C Chassis, or CS 1000M Chassis) or the original site ID (Option 11C, Option 11C Mini, Option 11, or Option 11E).

Note 2: For the Option 11C Mini, the Security ID and the Current AUX ID numbers are always the same.

Example screen display:

```
Security ID: 10000326
Current AUX ID: 10000326
Do you wish to change the AUX ID? (y/n/[a]bort)
```

Do one of the following:

- Enter **y <CR>** (yes) and continue with step 19 on page 39.
- Enter **n <CR>** (no) and go to step 21 on page 40.
- Enter **a <CR>** (abort, return to Main Menu).

19 Enter the AUX ID.

Example screen:

```
Enter the Option 11/11E Security ID for the new AUX
ID, <cr> to maintain.

New AUX ID: 12121212

Is this correct?
```

Do one of the following:

- Enter **y <CR>** (yes) and continue with step 20 on page 40.
- Enter **n <CR>** (no) and go to step 18 on page 38.
- Enter **a <CR>** (abort, return to Main Menu).

20 Select M3900 Language Set.

```
Select M3900 Language Set:

1. Global 10 languages
2. Western Europe 10 languages
3. Eastern Europe 10 languages
4. North America 6 languages
5. Spare Group A
6. Spare Group B
7. Packaged languages

[q]uit, [p]revious, [m]ain menu, [h]elp or [?], <cr> -
redisplay


Enter Selection: 1
```

21 Review and confirm the information you entered.

```
Software Upgrade Summary:

Security ID             : 20002456
Aux ID                  :
Cabinet Type            : Call Server/MAIN
Feature Set             : N.America Premium Network
Services-L4 (ntsk01gb)
Additional Pkgs         : 22
Database                : Current Database Retained

                           Succession  Succession
S/W Release             :    0300    0400
License Parameters
TNS                     :    2500    2500
ACDN                    :     300     300
AST                     :       1       1
LTID                    :       0       0
RAN CON                 :       0       0
RAN RTE                 :     500     500
MUS CON                 :       0       0
BRAND                   :       2       2
ACD AGENTS              :      10      10
ANALOGUE TELEPHONES     :       0     160
ATTENDANT CONSOLES      :    2500    2500
BRI DSL                 :     150     150
CLASS TELEPHONES        :       0       0
```

```
DATA PORTS              :    2500    2500
DIGITAL TELEPHONES      :       0       0
IP PHONES     :       0       0
PHANTOM PORTS           :    2500    2500
WIRELESS TELEPHONES     :       0       0
WIRELESS VISITORS       :       0       0
ITG ISDN TRUNKS         :       0       0
TRADITIONAL TRUNKS      :    2500    2500
TMDI D-CHANNELS         :      64      64
SURVIVABILITY           :       1       1
PCA                     :       0       0
IP PEER H.323 Trunks    :       0       0
SIP Access Ports        :       0       0
M3900 Language Set      : 1. Global 10 languages

Is this correct? (y/n/[a]bort):
```

Do one of the following:

- Enter **`y <CR>`** (yes) and continue with Step 22.
- Enter **`n <CR>`** (no) and return to step 9 on page 33.
- Enter **`a <CR>`** (abort, return to Main Menu)

22 Enter the keycodes.

Note: See “Keycode information” on page 22 for important information on keycodes.

a. Enter keycodes instead of **`x, y, z`** in the following example.

```
Enter new Keycodes:

Key 1: xxxxxxxx <CR>
Key 2: yyyyyyyy <CR>
Key 3: zzzzzzzz <CR>
```

b. Look for the keycode validation message.

After you enter the last keycode, the system displays a message indicating whether the keycodes are successful or not. See the following message examples.

i. Example of a successful screen message:

```
Keycode validation successful
```

```
***WARNING*** A system restart will be invoked as
part of the software installation process.The
current S/W will be erased from the system.
```

ii. Example of an unsuccessful screen message:

```
Keycode validation unsuccessful
```

c. Do one of the following:

If	Then
The **successful** message appears	continue with the next step (step 23).
The **unsuccessful** message appears	repeat this step (step 22).

After three unsuccessful keycode validation attempts, the following message appears:

```
Keycode validation unsuccessful.

Installation aborted...returning to main menu.
```

23 Complete the software installation.

Example screen display:

```
Are you sure you wish to perform the upgrade?
```

Do one of the following:

- Enter **y <CR>** (yes). This procedure is at an end and a system restart is required.
- Enter **n <CR>** (no) and make the necessary changes to your installation.
- Enter **a <CR>** (abort).

End of Procedure

Upgrade software on the IP expansion cabinet or chassis

The procedures detailed in this section are specific for upgrading the software on IP expansion cabinet(s) or chassis. The procedures are as follows:

- Procedure 5, “Verifying and/or upgrading the boot code on the SSC card in the IP expansion cabinet/chassis” on page 44.
- Procedure 6, “Upgrading the software on the IP expansion cabinet/chassis using the Software Delivery card” on page 47.
- Procedure 7, “Upgrading or reinstalling software on an active Small System using manual configuration” on page 49.

In addition, this section contains the following procedures for installing software on IP expansion cabinet(s) or chassis:

- Procedure 9, “Installing software for IP expansion, using the preprogrammed software daughterboard” on page 52
- Procedure 10, “Installing software for IP expansion, using the preprogrammed software daughterboard through the Utilities menu” on page 54
- Procedure 11, “Configuring IP settings with Expansion Cabinet Installation option” on page 57
- Procedure 12, “Configuring IP settings through the Utilities menu” on page 60

Procedure 5
Verifying and/or upgrading the boot code on the SSC card in the IP expansion cabinet/chassis

Note: This procedure is performed from a TTY connected to the IP expansion cabinet or chassis.

1 Call up the Software Installation Program during a SYSLOAD.

During SYSLOAD, the following prompt appears:

```
FIVE SECONDS TO ENTER CONTROL-I TO INVOKE SOFTWARE
INSTALLATION PROGRAM

Press and hold 'control' key and press 'I'.
```

Note: Perform this step when starting the Software Installation Program during a SYSLOAD. To start the program using LD 143, ignore this step and do Procedure 4, step 6 on page 32 instead.

For a Cabinet system, start a system reload (SYSLOAD) by setting the circuit breaker on the front of the power supply to OFF then to ON.

For a Chassis system, start a system reload (SYSLOAD) by turning the power switch located on the inside front panel to OFF and then to ON.

2 Select `Expansion Cabinet Installation` from the **Expansion Cabinet Software Installation Main Menu**.

The **Expansion Cabinet Software Installation** menu is displayed:

```
SOFTWARE INSTALLATION PROGRAM
************************************************
Verify
IP Expansion Cabinet Security ID: xxxxxxxx
Main Cabinet Security ID: xxxxxxxx
************************************************

Expansion Cabinet Software Installation Main Menu:
1. Expansion Cabinet Installation - From Software
Delivery Card
2. Utilities
3. Expansion Cabinet Installation - From Software
DaughterBoard
[q]uit, [h]elp or [?], <cr> - redisplay

Enter Selection: 2
```

3 Select the `Flash Boot ROM Utilities` (item 7) from the **Utilities** menu.

The **Utilities** menu options are listed:

```
Utilities Menu:

1. Restore Backed Up Database
2. Archive Database Utilities
3. Install Archived Database
4. Review Upgrade Information
5. Clear Upgrade Information
6. Flash Boot ROM Utilities
7. Current Installation Summary
8. Change 3900 series set languages
9. IP FPGA Utilities
[q]uit, [p]revious, [m]ain, [h]elp, or [?], <cr>-
redisplay

Enter Selection: 7
```

4 List `Flash Boot ROM` (item 1) from the **Flash Boot ROM Utilities** menu.

The **Flash Boot ROM Utilities** menu displays:

```
Flash Boot ROM Utilities Menu:
1. List Flash Boot ROM
2. Upgrade Flash Boot ROM
3. Restore Flash Boot ROM
[q]uit, [p]revious, [m]ain, [h]elp or [?], <cr>-
redisplay

Enter Selection: 1

Flash Boot ROM Summary:

Active -- NTDK34FA_r07
Backup -- NTDK34AA_r08
```

Note: It is possible that there is nothing in the Backup boot ROM. Check the Software Delivery card for authenticity.

5 Verify your Flash Boot ROM code output from step 4 with the software you are loading.

> **WARNING**
>
> If the release number and boot code version on the Software Delivery card is greater than the active version shown, perform the upgrade.
>
> If the release number and boot code version on the Software Delivery card is less than the active version shown, do not perform the upgrade.

Note: All versions of boot code are backwards-compatible.

6 Upgrade the Flash Boot ROM (item 2) and select yes to perform the upgrade.

The **Flash Boot ROM Utilities** menu displays:

```
Flash Boot ROM Utilities Menu:
1. List Flash Boot ROM
2. Upgrade Flash Boot ROM
3. Restore Flash Boot ROM
[q]uit, [p]revious, [m]ain, [h]elp or [?], <cr>-
redisplay

Enter Selection: 2

Are you sure you wish to perform the Flash Boot ROM
Upgrade/Restore (y/n/[a]bort): Y

Upgrading Active FLash Boot ROM to NTDK34FA_r07

System Restart required to activate Flash Boot ROM
Upgrade.
```

7 Restart the system to activate the Flash Boot ROM upgrade.

Go to Procedure 6 on page 47 to upgrade the Software Daughterboard.

End of Procedure

Procedure 6
Upgrading the software on the IP expansion cabinet/chassis using the Software Delivery card

Note: This procedure is performed from a TTY connected to the IP expansion cabinet/chassis.

1 Call up the Software Installation Program during a SYSLOAD.

During SYSLOAD, the following prompt appears:

```
FIVE SECONDS TO ENTER CONTROL-I TO INVOKE SOFTWARE
INSTALLATION PROGRAM
```

Press and hold 'control' key and press 'I'.

Note: Perform this step when starting the Software Installation Program during a SYSLOAD. To start the program using LD 143, ignore this step and do Procedure 4, step 6 on page 32 instead.

For a Cabinet system, start a system reload (SYSLOAD) by setting the circuit breaker on the front of the power supply to OFF then to ON.

For a Chassis system, start a system reload (SYSLOAD) by turning the power switch located on the inside front panel to OFF and then to ON.

2 Select "Expansion Cabinet Installation" from the **Expansion Cabinet Software Installation Main Menu**.

The **Expansion Cabinet Software Installation** menu is displayed:

```
SOFTWARE INSTALLATION PROGRAM
**********************************************
Verify
IP Expansion Cabinet Security ID: xxxxxxxx
Main Cabinet Security ID: xxxxxxxx
**********************************************

Expansion Cabinet Software Installation Main Menu:
1. Expansion Cabinet Installation - From Software
Delivery Card
2. Utilities
3. Expansion Cabinet Installation - From Software
DaughterBoard
[q]uit, [h]elp or [?], <cr> - redisplay

Enter Selection: 1

Do you wish to do IP configuration? (y/n/{a}bort): y
```

3 Select the IP configuration method from the **IP Configuration** menu.

The **IP Configuration** menu is displayed:

```
IP Configuration Menu:
1. Automatically Using BootP
2. Using Manual Configuration
3. Keep Existing Configuration
[q]uit, [p]revious, [m]ain menu, [h]elp or [?],
<cr> - redisplay

Enter Selection:
```

IMPORTANT!

BootP is a broadcast message used for IP address discovery.

- For Point-to-Point installation, you must select option 1.
- For Layer 2 LAN installation, the recommended selection is option 1.
- For Layer 3 LAN installation, you must select option 2.

Do one of the following:

- Enter **1** to configure the IP expansion cabinet/chassis automatically using BootP. Continue with step 4 in this procedure.
- Enter **2** to configure the IP expansion cabinet/chassis using manual configuration. Go to Procedure 7, step 3 on page 50.

4 The software installation is completed automatically without user intervention.

5 Refer to LD 117 in *Software Input/Output: Maintenance* (NN43001-711) to configure the IP expansion cabinet/chassis IP address.

End of Procedure

Procedure 7
Upgrading or reinstalling software on an active Small System using manual configuration

Note: This procedure is performed from a TTY connected to the IP expansion cabinet/chassis.

1 Call up the Software Installation Program during a SYSLOAD.

During SYSLOAD, the following prompt appears:

```
FIVE SECONDS TO ENTER CONTROL-I TO INVOKE SOFTWARE
INSTALLATION PROGRAM
```

Press and hold 'control' key and press 'I'.

Note: Perform this step when starting the Software Installation Program during a SYSLOAD. To start the program using LD 143, ignore this step and do Procedure 4, step 6 on page 32 instead.

For a Cabinet system, start a system reload (SYSLOAD) by setting the circuit breaker on the front of the power supply to OFF then to ON.

For a Chassis system, start a system reload (SYSLOAD) by turning the power switch located on the inside front panel to OFF and then to ON.

2 Select `Expansion Cabinet Installation` from the **Expansion Cabinet Software Installation Main Menu**.

The **Expansion Cabinet Software Installation** menu is displayed:

```
SOFTWARE INSTALLATION PROGRAM
**********************************************
Verify
IP Expansion Cabinet Security ID: xxxxxxxx
Main Cabinet Security ID: xxxxxxxx
**********************************************

Expansion Cabinet Software Installation Main Menu:
1. Expansion Cabinet Installation - From Software
Delivery Card
2. Utilities
3. Expansion Cabinet Installation - From Software
DaughterBoard
[q]uit, [h]elp or [?], <cr> - redisplay

Enter Selection: 1

Do you wish to do IP configuration? (y/n/{a}bort): y
```

3 Select Manual Configuration (item 2) from the IP expansion cabinet configuration menu.

The **IP Configuration** menu is displayed:

```
IP Configuration Menu:
1. Automatically Using BootP
2. Using Manual Configuration
3. Keep Existing Configuration
[q]uit, [p]revious, [m]ain menu, [h]elp or [?],
<cr> - redisplay

Enter Selection: 2
```

4 Configure IP Expansion Parameters.

For the following menu example, sample IP parameters will be used, as follows:

IP address of the expansion cabinet/chassis 100BaseT(F): 47.147.20.101
Subnet Mask of the expansion cabinet/chassis 100BaseT(F): 255.255.255.0
Gateway address: 47.147.20.1
IP address of the main cabinet/chassis 100BaseT(F): 47.147.10.100

The IP Parameters menu is displayed:

```
Enter Expansion New IP Parameters:
Expansion IP: 47.147.20.101
Expansion NetMask: 255.255.255.0
Main IP: 47.147.10.100

Expansion Router/Gateway: 47.147.20.1

Is this correct? (t/n/[a]bort): Y
```

Note: "Expansion Router/Gateway" appears only in a Layer 3 configuration.

5 The software installation is completed automatically without user intervention.

6 Refer to LD 117 in *Software Input/Output: Maintenance* (NN43001-711) to configure the IP expansion cabinet/chassis IP address.

End of Procedure

Procedure 8
Upgrading or reinstalling software on an active Small System with survivable IP expansion cabinet(s)/chassis

Note: This procedure is recommended to minimize service disruption on an active switch.

1 Force all IP expansion cabinet(s)/chassis configured for Survivability to operate in survival mode.

a. Log in to the main cabinet or chassis and access LD 135.

b. Type the following at the prompt:

```
SOTS n
```

The IP expansion cabinet(s)/chassis will reboot and restart in survival mode.

2 Complete Procedure 4 on page 31 and reboot the Small System main cabinet or chassis.

3 Complete Procedure 6 on page 47 for the IP expansion cabinet(s)/ chassis.

Note: The IP expansion cabinets/chassis configured for Survivability will reboot in survival mode.

4 Force all IP expansion cabinet(s)/chassis configured for Survivability back into normal mode.

a. Log in to the main cabinet or chassis and access LD 135.

b. Type the following at the prompt:

```
SBFS n
```

The IP expansion cabinet(s)/chassis will reboot and restart in normal mode.

End of Procedure

Software installation on the IP expansion cabinet or chassis using the preprogrammed software daughterboard

Point-to-Point or Layer 2 with BootP configuration

For Point-to-Point or Layer 2 with BootP configuration, you do not need a TTY connected to the IP expansion cabinet or chassis. Power up the system, and the software installs automatically.

Layer 2 or Layer 3 with manual configuration

Follow Procedure 9 to install software using a TTY connected to the IP expansion cabinet or chassis.

Procedure 9
Installing software for IP expansion, using the preprogrammed software daughterboard

Note: This procedure is performed from a TTY connected to the IP expansion cabinet/chassis.

1 Power up the system, and the following menu appears:

```
SOFTWARE INSTALLATION PROGRAM
************************************************
Verify
IP Expansion Cabinet Security ID: xxxxxxxx
Main Cabinet Security ID: xxxxxxxx
************************************************

Expansion Cabinet Software Installation Main Menu:
1. Expansion Cabinet Installation - From Software
Delivery Card
2. Utilities
3. Expansion Cabinet Installation - From Software
DaughterBoard

[q]uit, [h]elp or [?], <cr> - redisplay
```

```
Enter Selection:
```

WARNING

If there is no input within two minutes, the system will attempt automatic configuration using BootP. A carriage return will disable this timer and leave you in the menu.

```
Enter Selection: 3
Do you wish to do IP configuration? (y/n/[a]bort): y
```

2 Select Manual Configuration (item 2) from the **IP Configuration** menu.

IMPORTANT!

BootP is a broadcast message used for IP address discovery.

- For Point-to-Point installation, you must select option 1.
- For Layer 2 LAN installation, the recommended selection is option 1.
- For Layer 3 LAN installation, you must select option 2.

The **IP Configuration** menu is displayed:

```
IP Configuration Menu:
1. Automatically Using BootP
2. Using Manual Configuration
3. Keep Existing Configuration
[q]uit, [p]revious, [m]ain menu, [h]elp or [?],
<cr> - redisplay

Enter Selection: 2
```

3 Configure IP Expansion Parameters.

For the following menu example, sample IP parameters will be used, as follows:

IP address of the expansion cabinet/chassis 100BaseT(F): 47.147.20.101
Subnet Mask of the expansion cabinet/chassis 100BaseT(F): 255.255.255.0
Gateway address: 47.147.20.1
IP address of the main cabinet/chassis 100BaseT(F): 47.147.10.100

The IP Parameters menu is displayed:

```
Enter Expansion New IP Parameters:
Expansion IP: 47.147.20.101
Expansion NetMask: 255.255.255.0
Main IP: 47.147.10.100

Expansion Router/Gateway: 47.147.20.1

Is this correct? (y/n/[a]bort): Y
```

Note: "Expansion Router/Gateway" appears only in a Layer 3 configuration.

4 The software installation is completed automatically without user intervention.

5 Refer to LD 117 in *Software Input/Output: Maintenance* (NN43001-711) to configure the IP expansion cabinet/chassis IP address.

End of Procedure

Procedure 10
Installing software for IP expansion, using the preprogrammed software daughterboard through the Utilities menu

1 Power up the system, and the following menu appears:

```
Technology Software Installation Main Menu:
************************************************
1. IP Media Gateway/IPExpansion Cabinet

2. Call Server/Main Cabinet
```

```
[q]uit, [h]elp or [?], <cr> - redisplay
```

WARNING

If there is no input within two minutes, the system will attempt automatic configuration using BootP. A carriage return will disable this timer and leave you in the menu.

```
Enter Selection: 1

IP Media Gateway/Expansion Cabinet Software
Installation Main Menu:

1. IP Media Gateway/Expansion Cabinet Installation
- From Software Delivery Card

2. Utilities

[q]uit, [p]revious, [m]ain menu, [h]elp or [?],
<cr> - redisplay

Enter Selection: 2
```

2 Select `IP Configuration` from the **Utilities** menu.

```
Utilities Menu:

1. IP Configuration (L3)

2. Review Upgrade Information

3. Clear Upgrade Information

4. Flash Boot ROM Utilities

5. Current Installation Summary

6. IP FPGA Utilities

[q]uit, [p]revious, [m]ain menu, [h]elp or [?],
<cr> - redisplay


Enter Selection: 1
```

3 Enter **y** to confirm IP configuration.

```
Do you wish to do IP configuration? (y/n/[a]bort): y
```

4 Select the desired method from the **IP Configuration** menu displayed.

```
IP Configuration Menu:
1. Automatically Using BootP
2. Using Manual Configuration
3. Keep Existing Configuration
[q]uit, [p]revious, [m]ain menu, [h]elp or [?],
<cr> - redisplay

Enter Selection: 2
```

5 Configure IP Expansion Parameters.

For the following menu example, sample IP parameters will be used, as follows:

IP address of the expansion cabinet/chassis 100BaseT(F): 47.147.20.101
Subnet Mask of the expansion cabinet/chassis 100BaseT(F): 255.255.255.0
Gateway address: 47.147.20.1
IP address of the main cabinet/chassis 100BaseT(F): 47.147.10.100

The IP Parameters menu is displayed:

```
Enter IP Media Gateway/Expansion New IP Parameters:

IP Media Gateway/Expansion IP       : 47.147.20.101

Call Server/Main IP          : 47.147.10.100

IP Media Gateway/Expansion NetMask : 255.255.255.0

L3 Configuration...

IP Media Gateway/Expansion Router: 47.147.20.1

Is this correct? (y/n/[a]bort): Y
```

Note: "Expansion Router/Gateway" appears only in a Layer 3 configuration.

6 The software installation is completed automatically without user intervention.

7 Refer to LD 117 in *Software Input/Output: Maintenance* (NN43001-711) to configure the IP expansion cabinet/chassis IP address.

End of Procedure

Entering IP Configuration Menu through Expansion Cabinet Installation - From Software Delivery Card option

With a TTY connected to an IP expansion cabinet/chassis, you can use one of the following procedures to configure IP settings.

Procedure 11
Configuring IP settings with Expansion Cabinet Installation option

1. Insert the Software Delivery card for the required release of software in Slot A in the PC Card socket located in the NTDK20 SSC faceplate.
2. Power up the system, and the following menu appears:

```
SOFTWARE INSTALLATION PROGRAM
************************************************
Verify
Security ID: xxxxxxxx
Main Cabinet Security ID: xxxxxxxx
************************************************

Technology Software Installation Main Menu:
1. IP Media Gateway/IPExpansion Cabinet

2. Call Server/Main Cabinet

[q]uit, [h]elp or [?], <cr> - redisplay

Enter Selection: 1

       Release:  xxxxxxx

     Created:  DAY Month Date hour:min:sec EST 2004

IP Media Gateway/Expansion Cabinet Software
Installation Main Menu:

1. IP Media Gateway/Expansion Cabinet Installation
- From Software Delivery Card

2. Utilities

[q]uit, [p]revious, [m]ain menu, [h]elp or [?],
<cr> - redisplay
```

3. Enter **y** to confirm IP configuration.

```
Do you wish to do IP configuration? (y/n/[a]bort): y
```

4. Select the desired method from the **IP Configuration** menu displayed.

```
IP Configuration Menu:
1. Automatically Using BootP
2. Using Manual Configuration
3. Keep Existing Configuration
[q]uit, [p]revious, [m]ain menu, [h]elp or [?],
<cr> - redisplay

Enter Selection: 2
```

5 Configure IP Expansion Parameters.

For the following menu example, sample IP parameters will be used, as follows:

IP address of the expansion cabinet/chassis 100BaseT(F): 47.147.20.101
Subnet Mask of the expansion cabinet/chassis 100BaseT(F): 255.255.255.0
Gateway address: 47.147.20.1
IP address of the main cabinet/chassis 100BaseT(F): 47.147.10.100

The IP Parameters menu is displayed:

```
Enter IP Media Gateway/Expansion New IP Parameters:
IP Media Gateway/Expansion IP       : 47.147.20.101

Call Server/Main IP          : 47.147.20.100

IP Media Gateway/Expansion NetMask : 255.255.255.0

L2 Configuration...

IP Media Gateway/Expansion Router: 47.147.20.1

Is this correct? (y/n/[a]bort): Y

Select M3900 Language Set :

1. Global 10 languages
2. Western Europe 10 languages
3. Eastern Europe 10 languages
4. North America 6 languages
5. Spare Group A
6. Spare Group B
7. Packaged languages

[q]uit, [p]revious, [m]ain menu, [h]elp or [?],
<cr> - redisplay

Enter Selection: 1

Communication Server 1000 Software Rls XXXX will be
installed.

*** WARNING *** A system restart will be invoked

as part of the software installation process.

Are you sure you wish to perform the installation?
(y/n/[a]bort): y
```

Note: "Expansion Router/Gateway" appears only in a Layer 3 configuration.

6 The software installation is completed automatically without user intervention.

7 Refer to LD 117 in *Software Input/Output: Maintenance* (NN43001-711) to configure the IP expansion cabinet/chassis IP address.

End of Procedure

Procedure 12
Configuring IP settings through the Utilities menu

1. Insert the Software Delivery card for the required release of software in Slot A in the PC Card socket located in the NTDK20 SSC faceplate.
2. Power up the system, and the following menu appears:

```
SOFTWARE INSTALLATION PROGRAM
************************************************
Verify
IP Expansion Cabinet Security ID: xxxxxxxx
Main Cabinet Security ID: xxxxxxxx
************************************************

Expansion Cabinet Software Installation Main Menu:
1. Expansion Cabinet Installation - From Software
Delivery Card
2. Utilities
3. Expansion Cabinet Installation - From Software
DaughterBoard

[q]uit, [h]elp or [?], <cr> - redisplay

Enter Selection: 2
```

3. Select `IP Configuration` from the **Utilities** menu.

```
Utilities Menu:

1. IP Configuration (L3)
2. Review Upgrade Information
3. Clear Upgrade Information
4. Flash Boot ROM Utilities
5. Current Installation Summary
6. IP FPGA Utilities
[q]uit, [p]revious, [m]ain menu, [h]elp or [?],
<cr> - redisplay

Enter Selection: 1
```

4. Enter **y** to confirm IP configuration.

```
Do you wish to do IP configuration? (y/n/[a]bort): y
```

5 Select the desired method from the **IP Configuration** menu displayed.

```
IP Configuration Menu:
1. Automatically Using BootP
2. Using Manual Configuration
3. Keep Existing Configuration
[q]uit, [p]revious, [m]ain menu, [h]elp or [?],
<cr> - redisplay

Enter Selection: 2
```

6 Configure IP Expansion Parameters.

For the following menu example, sample IP parameters will be used, as follows:

IP address of the expansion cabinet/chassis 100BaseT(F): 47.147.20.101
Subnet Mask of the expansion cabinet/chassis 100BaseT(F): 255.255.255.0
Gateway address: 47.147.20.1
IP address of the main cabinet/chassis 100BaseT(F): 47.147.10.100

The IP Parameters menu is displayed:

```
Enter IP Media Gateway/Expansion New IP Parameters:
IP Media Gateway/Expansion IP       : 47.147.20.101

Call Server/Main IP          : 47.147.20.100

IP Media Gateway/Expansion NetMask : 255.255.255.0

L2 Configuration...

IP Media Gateway/Expansion Router: 47.147.20.1

Is this correct? (y/n/[a]bort): Y
```

Note: "Expansion Router/Gateway" appears only in a Layer 3 configuration.

7 The software installation is completed automatically without user intervention.

8 Refer to LD 117 in *Software Input/Output: Maintenance* (NN43001-711) to configure the IP expansion cabinet/chassis IP address.

End of Procedure

Upgrading feature set and License parameters

Contents

This section contains information on the following topics:

Introduction

This chapter describes how to upgrade the feature set and License parameters on a Small System. This procedure applies when you are not upgrading to a new software release (same release upgrade). You do not need the Software Delivery card (PC Card) to perform this type of upgrade. This upgrade uses the Software Installation Program (LD 143) and is menu-driven. The program is clear and direct and includes a Help facility to help you make correct selections.

> ***Note:*** If you need more detailed information, refer to "Upgrading or installing software" on page 19. This chapter contains complete details of the Software Installation Program (LD 143).

Summary of steps

The following list reviews the steps you follow to upgrade and install the feature set and License parameters:

1 Start the Software Installation Program.

2 Select the System Upgrade function.

3 Select feature set and packages (optional).

4 Select License parameters (optional).

5 Validate keycodes.

6 Load the software.

Upgrade the feature set and License parameters

The following procedure describes how to upgrade the feature set and License parameters without upgrading the software release.

Note: To answer the following questions, use the Keycode Data Sheet. Please have it available.

Procedure 13
Upgrading feature set and License parameters

1 Start the Software Installation Program in LD 143.

The overlay sequence required in LD 143 is prompted as follows:

```
LD 143
CCBR000
.UPGRADE
```

2 Select the `System Upgrade` option from the Software Installation Program.

The system displays the **Software Installation Main Menu**.

```
Call Server/Main Cabinet Software Installation Main
Menu:
1. New Install or Upgrade from Option 11/11E - From
Software DaughterBoard
2. System Upgrade
3. Utilities
4. New System Installation - From Software Delivery
Card
[q]uit, [h] help or [?], <cr> - redisplay

Select item: 2 (System Upgrade)
```

3 Select the `Option 11C Feature/Parameter Upgrade` from the **Select type of upgrade to be performed** menu.

The system displays the **Select type of upgrade to be performed** menu.

```
Select type of upgrade to be performed:
1. Option 11/11E to Option 11C
2. Option 11C New Software Upgrade
3. Option 11C Feature/Parameter Upgrade

Select item: 3 (Option 11C Feature/Parameter Upgrade)
```

Note: In the software menu, "`Option 11C`" appears for Option 11C, Option 11C Mini, Meridian 1 PBX 11C Cabinet, and Meridian 1 PBX 11C Chassis systems.

4 Indicate if you want to change the current feature set.

The system displays the **Select Feature Set** change menu.

```
Select Feature Set You Wish to Enable:
1. General Business (ntskxxxx)
2. Enhanced Business (ntskxxxx)
3. Enterprise Business (ntskxxxx)
4. NAS/VNS (ntskxxxx)
5 Retain Current Feature Set
[q]uit, [p]revious, [m]ain menu, [h] help or [?],
<cr> - redisplay

Select the Feature Set you wish to enable:
```

Note: The feature set selected must match that provided with the keycodes.

5 Indicate if there are packages to add.

The system displays the add packages menu.

```
Do you wish to add packages? (y/n/[a]bort):
```

Select **y** to add packages.

```
Summary of packages selected: (example only)
0-2 4-5 7-14-23-29 32-64 67 70-77 79-81 83 86-93
.....

Enter additional packages: <cr> to continue
```

Enter additional packages followed by a carriage return.

Note: The additional packages must match those provided with the keycodes.

6 Review and make changes to the License parameters if required.

The switch displays the current License parameters as follows (example only):

```
License Parameters will be set to:

TNS (200)
ACDN (300)
AST (100)
LTID (100)
RAN CON (12)
RAN RTE (2500)
MUS CON (100)
BRAND (0)
ACD AGENTS (300)
ANALOGUE TELEPHONES (2500)
ATTENDANT CONSOLES (2500)
BRI DSL (100)
CLASS TELEPHONES (2500)
DATA PORTS (2500)
DIGITAL TELEPHONES (2500)
IP PHONES (0)
PHANTOM PORTS (2500)
WIRELESS TELEPHONES (2500)
WIRELESS VISITORS (0)
ITG ISDN TRUNKS (2500)
TRADITIONAL TRUNKS (2500)
TMDI D-CHANNELS (100)
SURVIVABILITY (4)
```

```
Do you wish to change any License parameter? (y/n/
[a]bort):
```

Select **y** to change License parameter(s).

Note: If you do not change the feature set, the parameters displayed remain as the current License parameters. The License parameters selected must match those provided with the keycodes.

7 Verify or change the AUX ID.

The default AUX ID is either the security ID provided with the Small System, or the original Option 11C, Option 11C Mini, or Option 11/11E site ID.

```
Security ID: xxxxxxxx7
Current AUX ID: xxxxxxxx
Do you wish to change the AUX ID? (y/n/[a]bort):
```

Select your AUX ID option as provided with the keycodes.

8 Review and confirm the information entered.

The screen displays `Same Release Upgrade Summary`. Review and confirm the information displayed.

9 Enter the keycodes when prompted.

After the system confirms and accepts the keycodes, the following prompt appears:

```
Are you sure you wish to perform the installation?
```

10 Enter **y** in response to the prompt.

If the only change is an increase in License parameter values, a screen message states that you do not need a SYSLOAD. The system has put into operation changes to the License values.

If there must be a system reload (SYSLOAD), it does not need to occur immediately. The system stores the information until you perform the SYSLOAD. Because a SYSLOAD interrupts service on the system, it is better to start it later when a service interruption is less inconvenient.

End of Procedure

Software utilities

Contents

This section contains information on the following topics:

Introduction

This chapter describes how to use the **Utilities** menu of the Software Installation Program to do the following:

- install an archived database
- review and clear upgrade information
- obtain an installation summary
- configure 3900 series languages
- upgrade the Field Programmable Gate Array (FPGA) on the IP daughterboard

The Utilities menu

The following procedure describes how to use LD 143 to start the Software Installation Program and access the software utilities.

> ***Note:*** Most of the procedures in this chapter require the use of a Software Delivery card (PC Card). Make sure you install the PC Card before you start the Software Installation Program.

Procedure 14
Accessing the Utilities menu

1 Insert the Software Delivery card in Slot A of the PC Card socket. The socket is located in the faceplate of the Small System's NTDK20 Small System Controller (SSC) card or, in an Option 11C Mini that has not been upgraded, the Mini System Controller (MSC) card.

Carefully press on the PC Card until it seats tightly.

2 Log in and load LD 143.

a. Enter **LOGI**.

The screen displays the PASS? prompt.

b. Respond to the PASS? prompt.

Note: The response to PASS? is different for each system. The response shown below is an example only.

```
LOGI
PASS?
0000 <CR>
LD 143 <CR>
. UPGRADE <CR>
```

c. Look for the following message.

The **Main Cabinet Software Installation** menu options are displayed:

```
Call Server/Main Cabinet Software Installation Main
Menu:
1. New Install or Upgrade from Option 11/11E - From
Software DaughterBoard
2. System Upgrade
3. Utilities
4. New System Installation - From Software Delivery
Card
[q]uit, [p]revious, [m]ain, [h]elp or [?], <cr> -
redisplay

Enter Selection:
```

If the screen displays the message, continue to step 3.

If the screen does not display the message, repeat step 2 (this step) and make sure you enter the correct information.

3 Select `Utilities` (item 3) from the **Software Installation Main Menu**.

The **Utilities** menu displays:

```
Utilities Menu:

1. Restore Backed Up Database
2. Archive Database Utilities
3. Install Archived Database
4. Review Upgrade Information
5. Clear Upgrade Information
6. Flash Boot ROM Utilities
7. Current Installation Summary
8. Change 3900 series set languages
9. IP FPGA Utilities
[q]uit, [p]revious, [m]ain, [h]elp, or [?], <cr>-
redisplay

Enter Selection:
```

End of Procedure

Install an archived database

The following procedure describes the steps to install an archived customer database using a Software Delivery card (PC Card).

Procedure 15
Installing an archived database

1 Insert the Software Delivery card in Slot A of the PC Card socket in the faceplate of the SSC or MSC card.

Note: For more detailed instructions for the installation of the Software Delivery card (PC Card), see Procedure 14 on page 70.

2 Use LD 143 to start the Software Installation Program.

Note: For more detailed instructions for this and the following step, see Procedure 14 on page 70.

3 Select `Utilities` (item 3) from the **Software Installation Main Menu**.

The **Utilities** menu displays:

```
Utilities Menu:

1. Restore Backed Up Database
2. Archive Database Utilities
3. Install Archived Database
4. Review Upgrade Information
5. Clear Upgrade Information
6. Flash Boot ROM Utilities
7. Current Installation Summary
8. Change 3900 series set languages
9. IP FPGA Utilities
[q]uit, [p]revious, [m]ain, [h]elp, or [?], <cr>-
redisplay

Enter Selection: 3
```

4 Select item 3 (Install Archived Database).

The system displays the list of archived customer databases.

5 Select the customer database.

Type the name of the database you want to restore.

The system prompts you to confirm the name of the database.

6 Confirm the database selection.

If you respond **yes**, continue with the next step, step 7.

If you respond **no**, go back to step 5.

7 Restore the archived database.

If the restore is successful, the screen displays the following:

```
Restoring Archived database to Primary drive...

Restore successful.

System Restart required to activate database.
```

If	Then
The restore is successful	the procedure is at an end.
The restore is not successful	go back to step 3 on page 72.

End of Procedure

Review and clear upgrade information

The Review Upgrade Information and Clear Upgrade Information options on the **Utilities** menu allow you to:

- review entered upgrade information
- clear the upgrade information from the Software Installation Program if necessary

Procedure 16
Reviewing and clearing upgrade information

1 Insert the Software Delivery card in Slot A of the PC Card socket in the faceplate of the SSC or MSC card.

Note: For more detailed instructions for the installation of the Software Delivery card (PC Card), see Procedure 14 on page 70.

2 Use LD 143 to start the Software Installation Program.

Note: For more detailed instructions for this and the following step, see Procedure 14 on page 70.

3 Select `Utilities` (item 3) from the **Software Installation Main Menu**.

The **Utilities** menu displays:

```
Utilities Menu:

1. Restore Backed Up Database
2. Archive Database Utilities
3. Install Archived Database
4. Review Upgrade Information
5. Clear Upgrade Information
6. Flash Boot ROM Utilities
7. Current Installation Summary
8. Change 3900 series set languages
9. IP FPGA Utilities
[q]uit, [p]revious, [m]ain, [h]elp, or [?], <cr>-
redisplay

Enter Selection:
```

4 Select the `Review Upgrade Information` (item 4) or `Clear Upgrade Information` (item 5) option from the **Utilities** menu.

If	Then
You select **4** (Review)	continue to step 5 on page 74.
You select **5** (Clear)	go to step 6 on page 74.

5 Review the summary of the upgrade information.

The screen displays the upgrade information for your review. When finished, go to step 4.

6 Review and clear or keep upgrade information.

The screen displays the selected upgrade information and the following prompt:

```
Do you wish to clear the Upgrade information?
```

Do one of the following:

- Enter **y <CR>** (yes). The procedure is at an end.
- Enter **n <CR>** (no) and go to step 3 on page 73.
- Enter **a <CR>** (abort, return to Main Menu).

End of Procedure

Installation summary

The following procedure describes how to get an installation summary using the Current Installation Summary utility.

Procedure 17
Using the Current Installation Summary utility

1 Use LD 143 to start the Software Installation Program.

Note: For more detailed instructions for this and the following step, see Procedure 14 on page 70.

2 Select `Utilities` (item 3) from the **Software Installation Main Menu**.

The **Utilities** menu displays:

```
Utilities Menu:

1. Restore Backed Up Database
2. Archive Database Utilities
3. Install Archived Database
4. Review Upgrade Information
5. Clear Upgrade Information
6. Flash Boot ROM Utilities
7. Current Installation Summary
8. Change 3900 series set languages
9. IP FPGA Utilities
[q]uit, [p]revious, [m]ain, [h]elp, or [?], <cr>-
redisplay

Enter Selection: 8
```

3 Select `Current Installation Summary` (item 8) from the **Utilities** menu.

4 Review the installation summary.

The installation summary displays on the screen for your review.

End of Procedure

Configure 3900 series language

The Language Selections available for the M3900 series sets are as follows:

- **Global 10 Languages** — English, French, German, Spanish, Swedish, Italian, Norwegian, Brazilian Portuguese, Finnish, Japanese Katakana
- **Western Europe 10 Languages** — English, French, German, Spanish, Swedish, Norwegian, Danish, Finnish, Italian, Brazilian Portuguese
- **Eastern Europe 10 Languages** — English, French, German, Dutch, Polish, Czech, Hungarian, Russian, Latvian, Turkish
- **North America 6 Languages** — English, French, German, Spanish, Brazilian Portuguese, Japanese Katakana

The following procedure describes how to configure 3900 series set languages in an identified Small System using a Software Delivery card (PC Card).

Procedure 18
Configuring the 3900 series set language

1 Insert the Software Delivery card in Slot A of the PC Card socket in the faceplate of the SSC card.

Note: For more detailed instructions for the installation of the Software Delivery card (PC Card), see Procedure 14 on page 70.

2 Use LD 143 to start the Software Installation Program.

Note: For more detailed instructions for this and the following step, see Procedure 14 on page 70.

3 Select `Utilities` (item 3) from the **Software Installation Main Menu**.

The **Utilities** menu displays:

```
Utilities Menu:

1. Restore Backed Up Database
2. Archive Database Utilities
3. Install Archived Database
4. Review Upgrade Information
5. Clear Upgrade Information
6. Flash Boot ROM Utilities
7. Current Installation Summary
8. Change 3900 series set languages
9. IP FPGA Utilities
[q]uit, [p]revious, [m]ain, [h]elp, or [?], <cr>-
redisplay

Enter Selection: 9
```

4 Select `Change 3900 series set languages` (item 9) from the **Utilities** menu.

5 Select the M3900 language set.

```
WARNING: Following selection will overwrite the
existing psdl.rec file
WARNING: Need to perform sysload after psdl file is
changed.
WARNING: All installed M3900 patches will be
removed

Select M3900 Language Set:

1. Global 10 languages
2. Western Europe 10 languages
3. Eastern Europe 10 languages
4. North America 6 languages
5. Spare Group A
6. Spare Group B
7. Packaged languages
[q]uit, [p]revious, [m]ain menu, [h]elp or [?],
<cr> - redisplay

Enter selection: 3
```

```
Backing up the current psdl.rec file... [wait}
3630080 bytes copied.
Copying current psdl.rec file... [wait] 3630080
bytes copied.
3900 series language set file successfully
installed. 67 bytes copied.
```

6 Perform a SYSLOAD to enable the new 3900 series set language.

End of Procedure

Firmware upgrade for IP daughterboard

The following procedure describes the steps to upgrade the Field Programmable Gate Array (FPGA), which resides on the IP daughterboard (with Release 25.30 and later).

Procedure 19
Upgrading the FPGA firmware

Note: This procedure applies only to the main cabinet or chassis.

1 Insert the Software Delivery card in Slot A of the PC Card socket in the faceplate of the SSC card.

Note: For more detailed instructions for the installation of the Software Delivery card (PC Card), see Procedure 14 on page 70.

2 Use LD 143 to start the Software Installation Program.

Note: For more detailed instructions for this and the following step, see Procedure 14 on page 70.

3 Select `Utilities` (item 3) from the **Software Installation Main Menu**.

The **Utilities** menu displays:

```
Utilities Menu:

1. Restore Backed Up Database
2. Archive Database Utilities
3. Install Archived Database
4. Review Upgrade Information
5. Clear Upgrade Information
6. Flash Boot ROM Utilities
7. Current Installation Summary
8. Change 3900 series set languages
9. IP FPGA Utilities
[q]uit, [p]revious, [m]ain, [h]elp, or [?], <cr>-
redisplay

Enter Selection: 10
```

4 Select `IP FPGA Utilities` (item 10) from the **Utilities** menu.

The following options are listed:

```
IP FPGA Utilities Menu:
1. List IP FPGA versions
2. Upgrade FPGA on IP D/B 1
3. Upgrade FPGA on IP D/B 2
4. Upgrade all IP FPGA's

[q]uit, [p]revious, [m]ain menu, [h]elp or [?],
<cr>-redisplay
```

5 Select `List IP FPGA versions` (item 1).

6 Check the FPGA version, and determine whether it is necessary to upgrade the FPGA.

Look at the version of the active FPGA:

If	Then
The active FPGA version is NTDK87AA Rel a (Hex 10) or later	this procedure is at an end.
The active FPGA version is not adequate and needs to be upgraded	continue with step 7.

7 Return to the **IP FPGA Utilities** menu.

8 Enter the appropriate selection for the IP daughterboard(s) that you are upgrading.

Note: For the IP expansion cabinet/chassis, you must install the daughterboard on the lower connector (Connector #2) of the SSC card. Therefore, in this case, selection 3 or 4 is the correct selection.

9 Once you have made your selection from the **IP FPGA Utilities** menu, the **Main** menu appears once again.

10 Reboot the system for the new FPGA version to take effect.

End of Procedure

Technical Assistance service

Contents

This section contains information on the following topics:

Nortel Technical Assistance Centers

To help customers obtain maximum benefit, reliability, and satisfaction from their CS 1000E systems, Nortel provides technical assistance in resolving system problems. Table 3 lists the centers that provide this service.

If you purchased a service contract for your Nortel product from a distributor or authorized reseller, contact the technical support staff for that distributor or reseller for assistance.

If you purchased a Nortel service program, contact one of the following Nortel Technical Solutions Centers.

Table 3
Customer Technical Services (Part 1 of 2)

Location	Contact
Nortel Global EnterpriseTechnical Support (GETS) PO Box 833858 2370 Performance Drive Richardson, TX 75083 USA	North America Telephone: 1 800 4NORTEL
Nortel Corp. P.O. Box 4000 250 Sydney Street Belleville, Ontario K8N 5B7 Canada	North America Telephone: 1 800 4NORTEL
Nortel Service Center - EMEA	EMEA Telephone: 00 800 8008 9009 or +44 (0)870 907 9009 E-mail: emeahelp@nortel.com
Nortel 1500 Concord Terrace Sunrise, Florida 33323 USA	Brazil Telephone: 5519 3705 7600 E-mail: entcts@nortel.com English Caribbean Telephone: 1 800 4NORTEL Spanish Caribbean Telephone: 1 954 858 7777 Latin America Telephone: 5255 5480 2170

Table 3
Customer Technical Services (Part 2 of 2)

Location	Contact
Network Technical Support (NTS)	Asia Pacific Telephone: +61 28 870 8800 Australia Telephone:1800NORTEL (1800 667835) or +61 2 8870 8800 E-mail: asia_support@nortel.com People's Republic of China Telephone: 800 810 5000 E-mail: chinatsc@nortel.com Japan Telephone: 010 6510 7770 E-mail: supportj@nortel.com Hong Kong Telephone: 800 96 4199 E-mail: chinatsc@nortel.com Taiwan Telephone: 0800 810 500 E-mail: chinatsc@nortel.com Indonesia Telephone: 0018 036 1004 Malaysia Telephone: 1 800 805 380 New Zealand Telephone: 0 800 449 716 Philippines Telephone: 1 800 1611 0063 or 632 917 4420 Singapore Telephone: 800 616 2004 South Korea Telephone: 0079 8611 2001 Thailand: Telephone: 001 800 611 3007

Services available

Services available through the Technical Assistance Centers include:

- diagnosing and resolving software problems not covered by support documentation
- diagnosing and resolving hardware problems not covered by support documentation
- assisting in diagnosing and resolving problems caused by local conditions

There are several classes of service available. Emergency requests (Class E1 and E2) receive an immediate response. Service for emergency requests is continuous until normal system operation is restored. Non-emergency

requests (Class S1, S2, and NS) are serviced during normal working hours. Tables 4 and 5 describe the service classifications.

Table 4
Technical service emergency classifications

Class	Degree of failure	Symptoms
E1	Major failure causing system degradation or outage	System out-of-service with complete loss of call-processing capability. Loss of total attendant console capability. Loss of incoming or outgoing call capability. Loss of auxiliary Call Detail Reporting (CDR) in resale application. Call processing degraded for reasons such as trunk group out-of-service: • 10% or more lines out-of-service • frequent initializations (seven per day or more) • inability to recover from initialization or SYSLOAD • consistently slow dial tone (eight seconds or more delay)
E2	Major failure causing potential system degradation or outage	Standby CPU out-of-service. Frequent initializations (one per day or more). Disk drive failure. Two sets of disks inoperative.

Table 5
Technical services non-emergency classifications

Class	Degree of failure	Symptoms
S1	Failure that affects service	Software or hardware trouble directly and continuously affecting user's service or customer's ability to collect revenue. Problem that will seriously affect service at in-service or cut-over date.
S2	Intermittent failure that affects service	Software or hardware faults that only intermittently affect service. System-related documentation errors that directly result in or lead to impaired service.
NS	Failure that does not affect service	Documentation errors. Software inconsistencies that do not affect service. Hardware diagnostic failures (not defined above) that cannot be corrected by resident skills. Test equipment failures for which a backup or manual alternative can be used. Any questions concerning products.

Except as excluded by the provisions of warranty or other agreements with Nortel, a fee for technical assistance may be charged, at rates established by Nortel. Information on rates and conditions for services are available through Nortel sales representatives.

Requesting assistance

Collect the information listed in Table 6 before you call for service.

Table 6
Checklist for service requests

Name of person requesting service	
Company represented	
Telephone number	
System number/identification	
Installed software generic and issue (located on data disk)	
Modem telephone number and password (if applicable)	
Seriousness of request (see Tables 4 and 5)	
Description of assistance required	

Nortel Communication Server 1000

Meridian 1

Small System Software-only Upgrade

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